

### **Remarks**

Claim 1 has been amended to delete the product-by-process language, requiring a two step implantation process. This unnecessarily limited the claimed method. Claim 1 has also been narrowed to define heart valves only.

Claim 4 now refers to the matrix in the form of a heart valve leaflet. Support is found at col. 3, lines 66-67.

Claims 6 and 7, drawn to blood vessels, have been cancelled.

New claim 8 has been added to define the physical properties of the artificial heart valve such as mechanical strength, and flexibility or pliability. Support for the amendment can be found in the patent and originally filed specification at column 7, lines 12-29.

New claims 9 and 10 are specific to polymers forming the matrix. Support is found at col. 4, line 2 to line 19.

New claim 11 refers to the porosity of the matrix. Support is found at col. 3, line 57.

New claims 12 and 13 require growth factors. Support is found at col. 5, lines 50-67.

New claim 14 requires incorporation of a bioactive molecule. Support is found at col. 6, line 11.

New claim 15 defines the cell-matrix construct of claims 1-14.

No new matter is introduced by the claim amendments.

Examination on the merits of claims 1-15 is earnestly solicited.

Respectfully submitted,



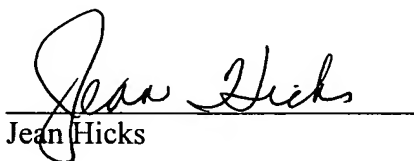
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I hereby certify that this paper, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

  
Jean Hicks

Date: February 19, 2004

**MARKED UP VERSION OF AMENDMENTS TO SPECIFICATION**

Please replace the paragraph bridging columns 2 and 3 with the following paragraph.

--As described herein, structures are created by seeding of fibrous or porous polymeric matrices with dissociated cells which are useful for a variety of applications, ranging from soft tissues formed of parenchymal cells such as hepatocytes, to tissues having structural elements such as heart valves and blood vessels, to cartilage and bone. In a particular improvement over the prior art methods, the polymeric matrices are implanted into a human or animal to allow ingrowth of fibroblastic tissue, then implanted at the site where the structure is needed, either alone or seeded with [defmed] defined cell populations.--

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